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09/402,796	12/22/1999	CHRISTINE DUPUIS	05725.0481	6460

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EXAMINER

WELLS, LAUREN Q

ART UNIT

PAPER NUMBER

1617

DATE MAILED: 05/20/2003

32

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application N .

09/402,796

Applicant(s)

DUPUIS, CHRISTINE

Examiner

Lauren Q Wells

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 26 March 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 16-37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 16-37 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

Claims 16-37 are pending. The Amendment filed 2/13/03, Paper No. 27, amended claims 16 and 35-37.

Applicant's arguments with respect to the rejections of claims 16-37 under 35 USC 103 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's amendment to the claims filed 2/13/03, Paper No. 27, is sufficient to overcome the Double Patenting Rejection in the previous Office Action.

#### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3/26/03 has been entered.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 21 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

(i) The phrase "chemically, enzymatically or microbiologically modified soluble starch" in claim 21 is vague and indefinite. The specification does not disclose what these starches are and one of skill in the art would not be able ascertain what compounds are encompassed by this

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phrase, as this phrase encompasses an innumerable amount of chemical possibilities and hence, compounds.

Regarding this phrase, Applicant argues, "the specification makes clear that the phrase means a starch. . . 'which has been chemically, enzymatically, or microbiologically modified so as to be soluble in water'". This argument is not persuasive, as it is still unclear what compounds Applicant is claiming. As such, the metes and bounds of this claim are unascertainable.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 16-23, 25-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dupuis et al. (6,080,392) in view of Emmons et al. (4,155,892) and in view of Hugel et al. (6,284,821).

The instant invention is directed toward a composition comprising, in a cosmetically acceptable medium, a nonionic amphiphilic associative polyurethane corresponding to formula (I), and an anionic polymer comprising at least one fatty-chain monomer unit, wherein the composition is in the form of a gel. The instant invention is further directed toward a method of applying the composition to the hair and a method of thickening a composition comprising adding the polyurethane and polymer to a composition.

Dupuis et al. teach a composition in the form of an aerosol mousse based on polyurethane and anionic polymer. The polyurethanes are disclosed as containing at least one hydrophilic

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sequence, at least one hydrophobic sequence and at least one urethane group. Formula (IV) of the reference is the same generic formula as that of formula (I) of the instant invention. Anionic polymers containing groups derived from carboxylic, sulphonic, or phosphoric acid are disclosed. Carboxylic acids are disclosed as chosen from acrylic, crotonic, maleic, fumaric, and itaconic acids. Sulphonic acids are disclosed as chosen from vinylsulphonic and styrenesulphonic acids. Examples of some preferred anionic polymers include, homopolymers or copolymers of acrylic or methacrylic acid, copolymers of acrylic or methacrylic acid with aminoethylene monomer, copolymers derived from crotonic acid and at least one other monomer, polymers derived from maleic, fumaric or itaconic acid with vinyl esters, vinyl ethers, vinyl halides and others, polyacrylamides containing carboxylate groups, terpolymers of vinylpyrrolidone/acrylic acid/lauryl methacrylate. The polyurethane comprises 0.01-5% of the composition. The anionic polymer is taught as comprising 0.1-20% of the composition. The polyurethane is taught as being in a solution which also contains starch. Further disclosed is a method of adding the polyurethane and anionic polymer to a cosmetic composition and a method of treating hair with the composition. See Col. 1, line 52-Col. 3, line 15; Col. 4, line 56-Col. 8, line 25. The reference lacks a specific teaching of R having 1 to 6 carbon atoms and gel forms.

Emmons et al. teach polyurethane thickeners for aqueous compositions, wherein the polyurethanes contain at least three hydrophobic groups interconnected by hydrophilic polyether groups. The polyurethane thickeners are disclosed for use in cosmetic compositions. The end-capping carbon chains of the polyurethane are disclosed as comprising from 4-20 carbon atoms, and that the length of the hydrocarbon chain can be altered to obtain a preferred thickness. See Col. 7, line 4-line 51; Col. 22, line 45-end.

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Huglin et al. teach mousses and gels as interchangeable cosmetic formulations for hair styling products. See Col. 32, lines 34-45.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to teach R or R1 of formula (IV) of Dupuis et al. as an alkyl group having 1 to 6 carbon atoms because a) Dupuis et al. teach R and R1 as a hydrophobic radical, preferably containing 8 to 18 carbon atoms; b) and Emmons et al. teach polyether-polyurethane compounds, such as those taught by Dupuis et al., wherein R and R1 is a hydrophobic group, and exemplify compounds, wherein R and R1 contain from 4-20 carbon atoms; thus, since one would expect a polyether-polyurethane compound having 4-8 carbon atoms to have similar thickening properties in cosmetics, and since Dupuis et al. and Emmons et al. teach that R and R1 can be any hydrophobic radical, it would be within the skill of one in the art to teach R or R1 of formula (IV) of Dupuis as having 1-6 carbon atoms; furthermore, one skilled in the art would be motivated to alter the length of the hydrocarbon chain because of the expectation of achieving a preferred composition thickness.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to teach the composition of Dupuis in the form of a gel, as taught by Huglin et al. a) because Huglin et al. teach mousses and gels as interchangeable cosmetic hair-styling forms; and b) because of the expectation of achieving a composition that can be uniformly spread through the hair.

Regarding claim 20, it is respectfully pointed out that even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the

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product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). See MPEP 2113.

Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dupuis in view of Emmons and in view of Huglin as applied to claims 16-23, 25-37 above, and further in view of Prencipe et al. (5,385,729).

Dupuis, Emmons, and Huglin are applied as discussed above. The reference lacks styrene phosphonic acids of vinyl phosphonic acids.

Prencipe et al. teach a personal care composition in the form of a hair or skin-treating gel. Styrene phosphonic acids and vinyl phosphonic acid units are disclosed as comprising a cross-linking polymeric thickening agent. See Col. 14, line 65-Col. 16, line 45.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to teach the phosphoric acid units of the anionic polymers of Dupuis as styrene phosphonic acids or vinyl phosphonic acids, as taught by Prencipe et al., because a) Dupuis and Prencipe et al. are both directed to cosmetic hair care compositions and both teach anionic polymers comprising fatty acid chains comprising phosphonic acid units; b) Prencipe et al. teach their anionic polymers as imparting viscoelasticity to hair care compositions.

### ***Conclusion***

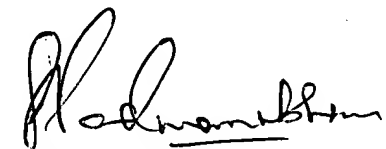
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lauren Q Wells whose telephone number is (703) 305-1878. The examiner can normally be reached on M-F (7-5:30), with alternate Mondays off.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreeni Padmanabhan can be reached on (703)305-1877. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9307 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1234.

lqw  
May 6, 2003



SREENI PADMANABHAN  
PRIMARY EXAMINER

5/18/03